

SEQUENCE LISTING

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<120> MODULATION OF MUC1 MEDIATED SIGNAL TRANSDUCTION

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<140> UNKNOWN  
 <141> 2005-10-11

<150> PCT/US2004/011195  
 <151> 2004-04-12

<150> 60/462,111  
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<150> 60/467,728  
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 <151> 2003-06-04

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<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 98

Ser Gly Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp  
1 5 10 15

Lys Lys Cys

<210> 99  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 99

Arg Arg Trp Arg Arg Trp Trp Arg Arg Trp Trp Arg Arg Trp Arg Arg  
1 5 10 15

<210> 100  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 100

Lys Lys Trp Lys Met Arg Arg Asn Gln Phe Trp Ile Lys Ile Gln Arg  
1 5 10 15

<210> 101  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 101

Lys Lys Trp Lys Met Arg Arg Asn Gln Phe Trp Ile Lys Ile Gln Arg  
1 5 10 15



<210> 102  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 102

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg  
1 5 10

<210> 103  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 103

Gly Arg Arg Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln  
1 5 10

<210> 104  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 104

Ser Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Cys  
1 5 10

<210> 105  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 105

Arg Arg Arg Gln Arg Arg Lys Lys Arg Gly Tyr  
1 5 10

<210> 106  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 106

Tyr Ala Arg Ala Ala Ala Arg Gln Ala Arg Ala  
1 5 10

<210> 107  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 107

Arg Lys Lys Arg Arg Gln Arg Arg Arg  
1 5

<210> 108  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 108

Arg Arg Arg Arg Arg Arg Arg Arg  
1 5

<210> 109  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 109

Arg Arg Arg Arg Arg Arg  
1 5

<210> 110  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 110

Arg Arg Arg Arg Arg Arg Arg Arg  
1 5

<210> 111  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 111

Arg Arg Arg Gln Arg Arg  
1 5

<210> 112  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 112

Gly Trp Thr Leu Asn Ser Ala Gly Tyr Leu Leu Gly Lys Ile Asn Leu  
1 5 10 15

Lys Ala Leu Ala Ala Leu Ala Lys Lys Ile Leu  
20 25

<210> 113  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 113

Ala Gly Tyr Leu Leu Gly Lys Ile Asn Leu Lys Ala Leu Ala Ala Leu  
1 5 10 15

Ala Lys Lys Ile Leu  
20

<210> 114  
<211> 33  
<212> PRT  
<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 114

Asp Ala Ala Thr Ala Thr Arg Gly Arg Ser Ala Ala Ser Arg Pro Thr  
1 5 10 15

Glu Arg Pro Arg Ala Pro Ala Arg Ser Ala Ser Arg Pro Arg Arg Val  
20 25 30

Glu

<210> 115

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 115

Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly  
1 5 10 15

Ala Trp Ser Gln Pro Lys Ser Lys Arg Lys Val  
20 25

<210> 116

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 116

Arg Gly Gly Arg Leu Ser Tyr Ser Arg Arg Arg Phe Ser Thr Ser Thr  
1 5 10 15

Gly Arg

<210> 117

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 117

Val Thr Val Val Leu Ala Leu Gly Ala Leu Ala Gly Val Gly Val Gly  
1 5 10 15

<210> 118  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 118

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro  
1 5 10 15

<210> 119  
<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 119

Lys Leu Ala Leu Lys Leu Ala Leu Lys Ala Leu Lys Ala Ala Leu Lys  
1 5 10 15

Leu Ala

<210> 120  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 120

Arg Arg Arg Arg Asn Arg Thr Arg Arg Asn Arg Arg Arg Val Arg  
1 5 10 15

<210> 121  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 121

Pro Ile Arg Arg Arg Lys Lys Leu Arg Arg Leu Lys  
1 5 10

<210> 122  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 122

Arg Arg Gln Arg Arg Thr Ser Lys Leu Met Lys Arg  
1 5 10

<210> 123  
<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 123

Leu Leu Ile Ile Leu Arg Arg Arg Ile Arg Lys Gln Ala His Ala His  
1 5 10 15

Ser Lys

<210> 124  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 124

Pro Lys Lys Lys Arg Lys Val  
1 5

<210> 125  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 125

Lys Arg Pro Ala Ala Ile Lys Lys Ala Gly Gln Ala Lys Lys Lys Lys

1 5 10 15

<210> 126  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 126

Cys Met His Ile Glu Ser Leu Asp Ser Tyr Thr Cys  
1 5 10

<210> 127  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 127

Cys Met Tyr Ile Glu Ala Leu Asp Lys Tyr Ala Cys  
1 5 10

<210> 128  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 128

Gly Gly Gly Gly Ser  
1 5

<210> 129  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 129

Glu Gly Lys Ser Ser Gly Ser Gly Ser Glu Ser Lys Val Asp  
1 5 10

<210> 130  
<211> 18

<212> PRT  
<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 130

Lys Glu Ser Gly Ser Val Ser Ser Glu Gln Leu Ala Gln Phe Arg Ser  
1 5 10 15

Leu Asp

<210> 131

<211> 72

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 131

Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala  
1 5 10 15

Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His  
20 25 30

Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys  
35 40 45

Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala  
50 55 60

Val Ala Ala Thr Ser Ala Asn Leu  
65 70

<210> 132

<211> 68

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 132

Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala  
1 5 10 15

Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His



20

25

30

Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys  
35 40 45

Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala  
50 55 60

Val Ala Ala Thr  
65

<210> 133  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 133

Ala Ala Ala Ser Ala Asn Leu  
1 5

<210> 134  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 134

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Val Ala Ala Thr  
1 5 10 15

Ser Ala Asn Leu  
20

<210> 135  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 135

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Val Ala Ala Ala  
1 5 10 15

Ser Ala Asn Leu  
20

<210> 136  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 136

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Arg Ile Val  
20

<210> 137  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 137

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gln Asp Glu Glu Glu  
1 5 10 15

Gly Ile Trp Ala  
20

<210> 138  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 138

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Val Ala Ala Thr  
1 5 10 15

Ser Ile Asn Leu  
20

<210> 139  
<211> 20  
<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 139

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Val Ala Ala Thr  
1 5 10 15

Tyr Ser Asn Leu  
20

<210> 140

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 140

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Arg Trp Ala  
20

<210> 141

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 141

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Arg Trp Leu  
20

<210> 142

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 142

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Ser Asp Arg  
1 5 10 15

Gly Ile Trp Ala  
20

<210> 143  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 143

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Val Ala Ala Thr  
1 5 10 15

Gly Ile Trp Ala  
20

<210> 144  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 144

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gln Asp Glu Glu Glu  
1 5 10 15

Thr Ile Trp Ala  
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<210> 145  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 145

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Ser Asp Arg  
1 5 10 15

Thr Ile Trp Ala  
20

<210> 146  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 146

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Ser Asp Arg  
1 5 10 15

Thr Ile Ile Ala  
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<210> 147  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 147

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Ser Asp Arg  
1 5 10 15

Lys Arg Ile Ala  
20

<210> 148  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 148

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ser Arg Thr Asp Arg  
1 5 10 15

Lys Tyr Trp Ala  
20

<210> 149  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 149

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gln Asp Glu Glu Glu  
1 5 10 15

Gly Ile Trp Ser  
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<210> 150

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 150

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ser Arg Thr Val Arg  
1 5 10 15

Glu Ile Trp Ala  
20

<210> 151

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 151

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ser Val Thr Ser Thr  
1 5 10 15

Ser Ile Asn Leu  
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<210> 152

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 152

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Ile Arg Val  
20

<210> 153  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 153

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Thr Asp Arg  
1 5 10 15

Lys Val Glu Val  
20

<210> 154  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 154

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Tyr Ile Val  
20

<210> 155  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
<400> 155

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ser Arg Thr Asp Arg  
1 5 10 15

Lys Tyr Gln Ile  
20

<210> 156  
<211> 20

<212> PRT  
<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 156

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Val  
1 5 10 15

Arg Leu Met Leu  
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<210> 157

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 157

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Val Pro Val  
20

<210> 158

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 158

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gln Asp Glu Arg Arg  
1 5 10 15

Leu Ile Val Leu  
20

<210> 159

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 159



Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Leu Val Ser Leu  
20

<210> 160  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 160

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Thr Arg  
1 5 10 15

Leu Val Trp Val  
20

<210> 161  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 161

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Tyr Arg Ile Val  
20

<210> 162  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 162

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ser Arg Thr Asp Arg  
1 5 10 15

Leu Glu Tyr Val  
20

<210> 163  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 163

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Leu Glu Ile Val  
20

<210> 164  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 164

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Thr Ile Ile Tyr  
20

<210> 165  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 165

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Arg Arg Ile Val  
20

<210> 166  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 166  
  
Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Asp Arg  
1 5 10 15

Lys Lys Ile Val  
20

<210> 167  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 167  
  
Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Ser Asp Arg  
1 5 10 15

Lys Arg Ile Val  
20

<210> 168  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 168  
  
Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Lys Asn Lys Asp Lys  
1 5 10 15

Glu Tyr Tyr Val  
20

<210> 169  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE  
  
<400> 169  
  
Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gly Met Thr Ser Ser  
1 5 10 15

Ser Ser Val Val  
20

<210> 170  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 170

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Arg Gly Arg Arg  
1 5 10 15

Glu Thr Trp Val  
20

<210> 171  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 171

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gln Asp Glu Arg Val  
1 5 10 15

Glu Thr Arg Val  
20

<210> 172  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 172

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Leu Gln Arg Arg Arg  
1 5 10 15

Glu Thr Gln Val  
20

<210> 173

<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 173

Ser Pro Gln Pro Asp Ser Thr Asp Asn Asp Asp Tyr Asp Asp Ile Ser  
1 5 10 15

Ala Ala

<210> 174  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 174

Pro Tyr Gly Thr Ala Met Glu Lys Ala Gln Leu Lys Pro Pro Ala Thr  
1 5 10 15

Ser Asp Ala

<210> 175  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 175

His Lys Ala Glu Ile His Ala Gln Pro Ser Asp Lys Glu Arg Leu Thr  
1 5 10 15

Ser Asp Ala

<210> 176  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 176

Pro Lys Gln Ala Asn Gly Gly Ala Tyr Gln Lys Pro Thr Lys Gln Glu  
1 5 10 15

Glu Phe Tyr Ala  
20

<210> 177

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 177

Ala Ile Ser Gly Thr Ser Ser Asp Arg Gly Tyr Gly Ser Pro Arg Tyr  
1 5 10 15

Ala Glu Val

<210> 178

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 178

Leu Asn Ser Cys Ser Asn Arg Arg Val Tyr Lys Lys Met Pro Ser Ile  
1 5 10 15

Glu Ser Asp Val  
20

<210> 179

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 179

Ala Arg Lys Ala Asn Met Lys Gly Ser Tyr Ser Leu Val Glu Ala Gln  
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Lys Ser Lys Val

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<210> 180  
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Ile Ser Gly Thr Pro Thr Ser Thr Met Val His Gly Met Thr Ser Ser  
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Ser Ser Val Val  
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<210> 181  
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Lys Asp Ile Thr Ser Asp Ser Glu Asn Ser Asn Phe Arg Asn Glu Ile  
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Gln Ser Leu Val  
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<210> 182  
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Thr Thr Asn Asn Asn Pro Asn Ser Ala Val Asn Ile Lys Lys Ile Phe  
1 5 10 15

Thr Asp Val

<210> 183  
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<400> 183

Thr Arg Glu Asp Ile Tyr Val Asn Tyr Pro Thr Phe Ser Arg Arg Pro  
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Lys Thr Arg Val  
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<210> 184

<211> 19

<212> PRT

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<223> DESCRIPTION OF ARTIFICIAL SEQUENCE: SYNTHETIC PEPTIDE

<400> 184

Ser Ser Ala Lys Ser Ser Asn Lys Asn Lys Lys Asn Lys Asp Lys Glu  
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Tyr Tyr Val

<210> 185

<211> 19

<212> PRT

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Thr Ser Gly Thr Gly His Asn Gln Thr Arg Ala Leu Arg Ala Ser Glu  
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Ser Gly Ile

<210> 186

<211> 19

<212> PRT

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<400> 186

Gln Gly Asp Pro Ala Leu Gln Asp Ala Gly Asp Ser Ser Arg Lys Glu



1 5 10 15

Tyr Phe Ile

<210> 187  
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<212> PRT  
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Ser Val Phe Ser Ile Pro Thr Leu Trp Ser Pro Trp Pro Pro Ser Ser  
1 5 10 15

Ser Ser Gln Leu  
20

<210> 188  
<211> 19  
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Lys Asp Ser Arg Pro Ser Phe Val Gly Ser Ser Ser Gly His Thr Ser  
1 5 10 15

Thr Thr Leu

<210> 189  
<211> 20  
<212> PRT  
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<400> 189

His Asp Phe Arg Arg Ala Phe Lys Lys Ile Leu Ala Arg Gly Asp Arg  
1 5 10 15

Lys Arg Ile Val  
20

<210> 190  
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<400> 190

Ser Thr Asp Asn Leu Trp Arg Pro Phe Met Asp Thr Leu Ala Ser His  
1 5 10 15

Gln Leu Tyr Ile  
20